

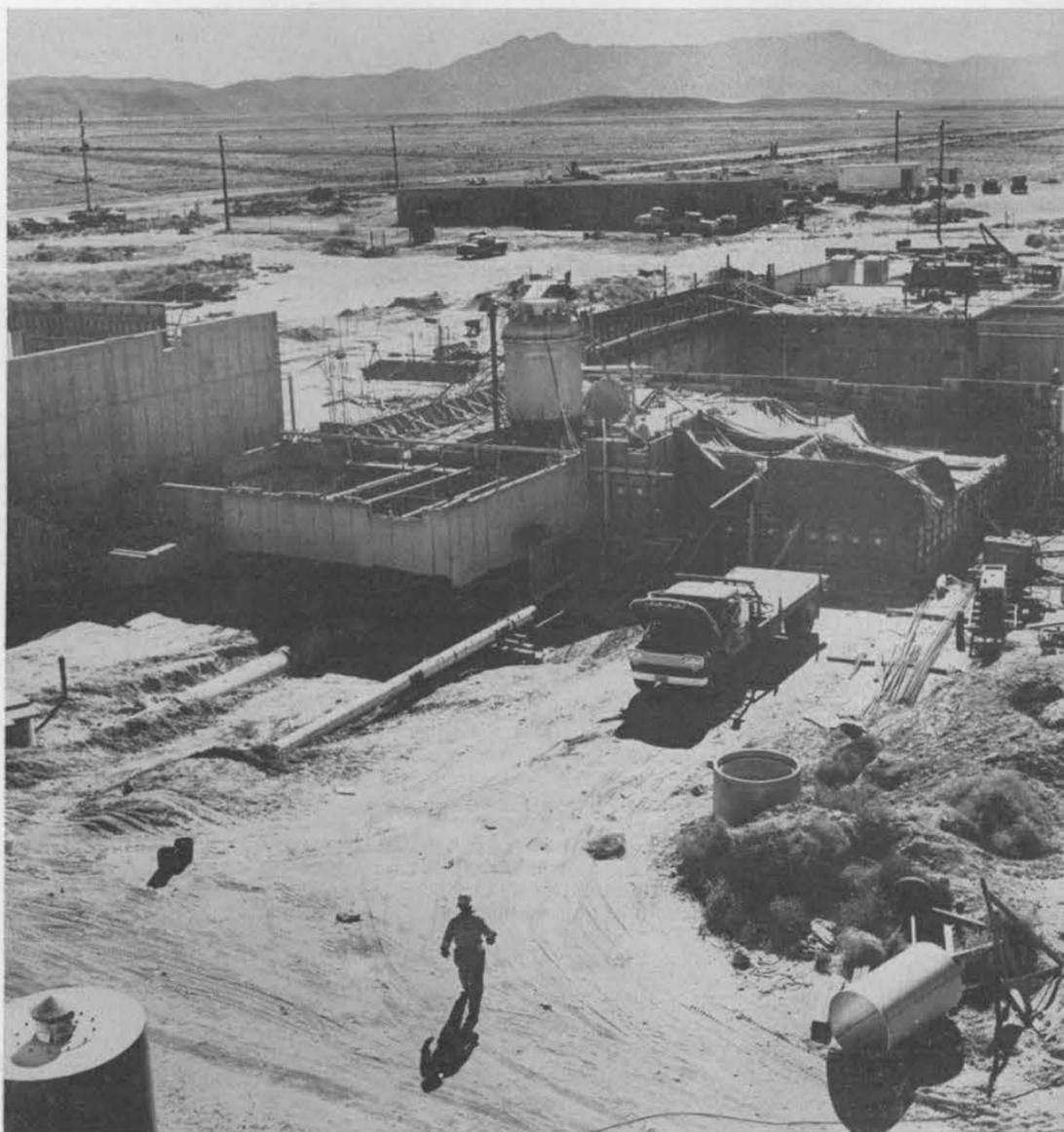
# Sandia Corporation LAB NEWS

ALBUQUERQUE, N. MEX. • LIVERMORE, CALIF.

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NOVEMBER 25, 1960



OVERALL VIEW of the Sandia Engineering Reactor Facility construction site shows underground rooms of the facility about complete and work beginning on the masonry block walls. Construction

is estimated about 88 per cent complete. Large tank in the center is the pressure vessel which extends to the lower level of the facility, where the nuclear core is located. Completion date is March 1961.



PRESSURE VESSEL of the Sandia Engineering Reactor Facility is shown in the maze of steel rods that will reinforce the concrete walls to be erected around it. The vessel will contain SERF's nuclear core. Access for the environmental materials testing programs to be conducted with the facility is provided by use of the underground chambers below the level shown by this photo.

## Remember to Forget Those Cards at Holiday Season—Do Good Turn Instead

With the approaching holiday season, many committees are being formed by Sandia organizations to plan Christmas giving projects instead of exchanging cards with fellow employees.

Several organizations have continuing projects such as buying shoes for school children, adopting families or individuals.

Other groups of employees are reminded that the Albuquerque Council of Social Agencies will again serve as a "clearing house" for donors and recipients.

The Salvation Army, Department of Public Welfare, Catholic Charities and Elks Club will also cooperate in locating families needing help.

Cash contributions are especially

welcomed by the Council or the agencies as it often means benefits may be extended through the year rather than limited to the Christmas season.

Another suggestion is cash donations to CARE. Money will be used to send food, clothing and books to people all over the world.

St. Anthony's Boys Home is looking for used musical instruments. They recently acquired a teacher who is qualified to teach music and they would like to start a band.

The practice of helping less fortunate people at Christmas time instead of exchanging cards has been encouraged by the Corporation for several years.

## New Teaching Method Almost Guarantees Learning



STUDENTS in an Out-of-Hours electronics class using Programmed Self Instruction are shown with instructor-observer R. F. Utter (3133), right. At left J. T. Williams (2323-1) is using the instruction program while Joan Jackson (4413-4) discusses a point with Mr. Utter. The new method is part of an experimental project conducted by Technical and Trades Training Division 3132.

Three courses using a new technique in teaching are in progress as an experimental project of Technical and Trades Training Division 3132. The new method, called "Programmed Self Instruction," seems ideally suited for industrial education, according to the enthusiastic training staff.

PSI is a carefully prepared step-by-step presentation of information. Each step contains a small bit of information and a question that requires an immediate answer. The student then compares his answer to the correct answer. A good program makes it almost impossible for a student to make a mistake.

The object is to have the student participate actively in the program. His success is motivation to continue to the next step.

The method has been effective at Sandia. Mel McCutchan, supervisor of Technical Training and Education Section, says that PSI indicates that better than 75 per cent of the subject matter is remembered at the end of the course. This is a decided improvement over conventional techniques.

Each student works at his own pace. The instructor is free to augment the program by giving individual attention to students with questions.

"Some employees have already completed a program in statistics prepared by Teaching Machines, Inc.," Mel says. "Fifteen students participated with excellent re-

sults. Tests given by the Personnel Testing Division 3154 to the students before the course began revealed a wide spread in the amount of knowledge of the subject. The same test given after completion showed that relative novices to the field had learned as well as those with more advanced technical knowledge."

"Reading comprehension," Mel says, "seems to be the only limiting factor to PSI."

Bell Telephone Laboratories' psychological research staff has pioneered in the area of programmed instruction for the past several years. Sandia is cooperating in the Bell Labs study by providing information on students' retention, rate of progress, etc., as they use the Bell Lab's Electronics Program in a class conducted by R. F. Utter (3133) and one in algebra, conducted by H. R. Shelton (3132).

Bob Utter is preparing the psychological report for Bell Labs.

"Generally," Mr. Utter says, "people retain only 10 per cent of what they hear and 30 per cent of what they hear and see. PSI results are much better."

PSI, which is hailed by many educators and psychologists as a revolutionary teaching concept, is based on the principles that people learn one thing at a time, that most people want to learn and that success spurs them on to more learning. Participation and motivation are the keys.

The course program designed

to provide these things is difficult and time-consuming to prepare. Both a subject matter expert and a psychologist work to insure that it fulfills the requirements.

"You see," Mr. Utter says, "if the student doesn't learn, it means that the program is not doing its job."

More classes with the PSI method will be offered in the Out-of-Hours educational program next semester. In addition to electronics and algebra, Russian, basic statistics and statistical inference will be offered.

"As more course programs of interest to Sandia become available," Mel says, "we will bring them into the training program."

In addition to the enthusiastic training staff, students also like PSI. No homework.

### Paper by L. L. Cobb To Be Presented in New York Nov. 30

A paper written by L. L. Cobb (8141-1) will be presented at the heat transfer session of the American Society of Mechanical Engineers' annual meeting in New York City Nov. 30. The paper treats the effect of hydrogen recombination on turbulent flow heat transfer.

The writing is based upon Mr. Cobb's work for his Master's degree at the University of California in Berkeley.

## Editorial Comment

## Christmas Booby Traps

"Don't give your child a boobytrap this Christmas!"

That's the advice of the National Safety Council.

"Some of the toys given youngsters as Christmas gifts," said Phil Dykstra, the Council's director of home safety, "can be lethal weapons."

"Not all the blame for toys that become hazardous to children after a few hours' use should go to the manufacturers," he said.

"Parents have as much — if not more — responsibility for toy safety as the manufacturers."

While Dykstra said he believes toy makers should keep safety foremost in mind — "And most reputable toy makers do" — he recommends the following for parents:

1. Buy toys that do not have small removable parts or such unsafe parts as eye-threatening pieces of metal. "Learn from experience — and from other parents — what types of toys most often cause trouble."

2. Buy toys suited for the child at his particular age. "A chemistry set in the hands of a five-year-old might be a deadly weapon. But it's not necessarily a bit unsafe for an older child who has been properly trained and supervised."

3. Supervise use of toys your children get for Christmas. "If you see that your child is too young for a particular toy," Dykstra advised, "put the toy on a shelf until it's ready for safe use."

"Manufacturers are doing their best to produce safe toys. With the help of parents, toy accidents can be virtually eliminated."

## Peace Through Preparedness

The title of this editorial is the theme of Civil Defense Day, which the nation observes Dec. 7, Pearl Harbor Day. We think it most fitting that Civil Defense Day and Pearl Harbor Day be observed together. The sneak attack which plunged us into World War II serves as a grim reminder that we must never again relax our vigilance.

In this nuclear age, attack without warning could strike our country and millions could die even while our superior military forces were destroying the enemy. Though modern weapons could kill millions of Americans, most of our people could survive — if they have fallout shelters.

Director Leo A. Hoegh of the office of Civil Defense Mobilization, in keynoting Civil Defense Day, calls these home fallout shelters "the lowest cost family insurance which can be obtained." Costs range from \$150 for a "do-it-yourself" shelter to \$1,500 for a custom-made shelter that also serves a growing family's need for an extra room.

He suggests that to be prepared, you should know and take action on five fundamentals:

1. Know warning signals.

A steady blast of three to five minutes means "attack probable; take action as directed by local government." A wailing tone or short blasts for three minutes means "attack imminent — take cover immediately in best available shelter."

2. Know your community plan for emergency action.

To get this plan it is best to consult the Civil Defense Organization at 1120 Stover Avenue, SW.

3. Be prepared to protect yourself against radioactive fallout.

This means having a home shelter. Sandia Corporation has made available to employees instructions for building inexpensive shelters. You may get a copy of a shelter booklet at the local Civil Defense office or by writing Box Home Shelter, Battle Creek, Michigan. Store a two-weeks supply of food, water, and other essential items and equipment.

4. Know first aid.

Sandia Corporation from time to time offers courses in Red Cross first aid. Make use of them. Call Technical Trades and Training Division, ext. 48138, for information about the next course.

5. Know Conelrad and have a battery powered radio set.

The Conelrad stations operating on 640 and 1240 on your radio dial will give you local emergency instructions.

It's as sensible and simple as that. Civil Defense Day should remind all of us of the need for these important survival preparations. To not take these basic self-protective measures is to gamble with your life.

Don't neglect civil defense preparedness in your home.

## Wedding

Annie J. Montgomery (4321-1) and Richard M. Kear (3462-3) were married Oct. 28 in Albuquerque. The couple is at home at 10605 Ralph NE.

Annie has been with the Corporation nearly five years and Richard has been a Sandia employee three years.

## Welcoming Party

A "once-in-a-while" party was held by members of Division 8161 at the Rod and Gun Club in Livermore Nov. 19. The get-together was to welcome new arrivals to the division. Ferne White (8161-1), Jack Grape (8161-2) and Hille Cutts (8161-1) made the arrangements.

## Sympathy

To Don N. Todd (5431) for the death of his brother Nov. 8 in Centralia, Ill.

To Howard J. Henry (8231-1) for the death of his father Nov. 2 in Pittsburgh, Pa.

To Manuel Moya (4221-1) for the death of his father-in-law on Nov. 12.

To Marcus Herrera (4252-5) for the death of his mother on Nov. 15.

To Russell Asbury (4254-2) for the death of his mother on Nov. 6.



**SPECIAL ELEVATOR** for Babette, "toy" poodle belonging to the Mearle Hicks (8141-1) family, enables her to join young Jerry (above, left) and Jeffrey Hicks in the post house built for them by their father. Finding no trees in the new housing development, Mearle (left) built the next best thing. Here Babette goes aloft.

## No Trees at Hand So Mearle Hicks Builds Post-House for Young Son

The absence of trees in a new housing development presents a problem to anyone wanting to build a tree house. Not so for Mearle Hicks (8141-1); he simply built a "post" house for his nine-year-old son Jerry.

Working from his own plans, and using structural suggestions offered by Ralph Richards (8141-1), Mearle completed the project in about three weekends. He began by nailing four 12½-ft. planks together to form a hollow post, which he placed upright into a 3½-ft. deep hole in the ground. Mearle filled the hole and a portion of the hollow post with concrete, providing a sturdy foundation for the post house.

For the floor of the house Mearle chose a piece of half-inch plywood, four by eight ft. in area, which he nailed to the top of the post, bracing it with wooden supports. From this point he built the remainder of the house, adding a shingled roof and masonite sides. With the completion of a trap door entrance and the installation of a chain ladder, the structure was complete except for the painting, which Mearle allowed Jerry and his pals to do.

## Congratulations

Born to:

Mr. and Mrs. Robert Velasquez (3462-3) a son on Nov. 5.

Mr. and Mrs. Herb Filusch (7124) a daughter, Leslee Marietta, on Nov. 4.

Mr. and Mrs. Tony J. Chavez (4624) a son on Nov. 7. Stella is on leave from Division 4622.

Mr. and Mrs. W. F. Hartman (7161-2) a daughter, Terry, on Nov. 12.

Mr. and Mrs. John R. Shunny (3423-2) a son, Peter Scott, on Oct. 31.

Mr. and Mrs. Darrell G. Dykes (7312-1) a son, John William, on Nov. 13.

Mr. and Mrs. J. R. Woodworth (1122) a daughter, Thalia Ann, on Nov. 15.

Mr. and Mrs. D. M. Davis (1122) a son, Roger Creveling, on Sept. 25.

Mr. and Mrs. B. W. Albert (2544) a son, Charles, on Nov. 11.

Mr. and Mrs. James W. Smith (8221-1) a son, Curtis James, on Oct. 15.

Mr. and Mrs. L. E. Heames (5133) a son, Jed Alan, on Nov. 6.

Mr. and Mrs. J. P. Gallagher (7133-2), a son, Paul Marshall, on Oct. 27.

Total cost of the project was \$65.

The post house has proven itself both durable and extremely popular in the neighborhood. It has weathered severe winds and extensive use by many small boys whose imaginations have transformed it into a sailing ship, a wilderness outpost, or a frontier fort. As many as 12 junior soldiers have occupied the "fort" at one time.

Anyone interested in building a post house of their own can get details from Mearle, who also has about 36 ft. of chain ladder left over.

## Sanado Club Plans Christmas Dinner

Sanado Club will hold its traditional Christmas dinner on Sunday, Dec. 4, at the Coronado Club with all members and their families present.

A buffet will be served from 1-2 p.m. Entertainment will be provided by the Bell Ringers.

Reservations may be made before Dec. 1 with Mrs. James E. Fesler, AX 9-1020.

Holiday decorations in the lobby and ballroom of the Coronado Club have again been provided by the Sanado Club. Mrs. H. C. McIlroy was general chairman for decorations this year.

## Christmas Party

A Christmas party Dec. 10 is planned for Divisions 8121 and 8123 at the Rod and Gun Club in Livermore. Arrangements are being made by Jean Smith (8123-3), Donna Short (8123-1) and Betty Lou Crocker (8123-3).

## Sandia Employees Apparent Winners In Recent Election

All but two of the Sandia employees who ran for public office in the recent elections are apparent winners according to the latest vote count. However, the County Clerk's office has not certified any of the winners yet.

Harry Kinney (7183), a Republican, was elected to the Board of County Commissioners, District No. 1. He held this same post in 1957-58.

Richard L. Starkey (4573), a Democrat, won the constable job in Precinct 6.

The rest of the winning candidates all won Justice of the Peace posts. Gaynor Earl Atkinson (2331), a Republican, won in Precinct 46. The other successful JP candidates are Democrats. They are William D. Ingram (5132), Precinct 20; John I. Malpas, Jr. (4252-6), Precinct 40; James J. Weber (5133), Precinct 43; and Henry J. Schroer (4232-4), Precinct 44.

## Ski Club Meets

The Sandia Ski Club at Livermore Laboratory held its first meeting of the season Nov. 16 at Arroyo Park near Livermore. A "cookout" preceded the showing of a ski movie, "Winter in the North Cascades." Presiding at the meeting was Tom Brumleve (8152-2).

## Ulivarri Named

Orlando Ulivarri, Jr., (2641 assigned to 2716) was named secretary of the Bernalillo County Democratic Central Committee by the party's executive committee last month.



Agnes Strauss (2750)

## Take a Memo, Please

The penalty in many states for failing to shut off the power before working on a circuit may be electrocution.

Sandia Corporation  
**LAB NEWS**  
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JOHN L. TISCHHAUSER to supervisor of Mathematical Services Division 7242, Data Services Department.



"Jack" has been working in the mathematical analysis part of Field Testing since he joined the Corporation nearly 10 years ago. Since March 1957 he has headed Mathematical Section 7242-2.

Prior to coming here he received a BS degree in Physics from St. Louis University. In recent years Jack has nearly completed study towards a Master's degree in mathematics at the University of New Mexico.

He is a member of Pi Mu Epsilon, mathematics honorary, and the Association for Computing Machinery.

During World War II Jack served a year and a half in the Marines.

JOHN T. RISSE to supervisor of Section 7182-1, Structural Analysis Division.



John has been working in structural analysis dynamics since he came to Sandia in January 1957.

Previously he was a project engineer for a year and a half for Mass Development Company in Davenport, Iowa, working on electro-mechanical and optical devices. He also was an engineer for five years for Iowa Manufacturing Company (heavy machinery) in Cedar Rapids.

John received his BS degree in electrical engineering from Iowa State University and has taken advanced courses both there and at the University of New Mexico. He was a registered professional engineer (electrical and mechanical) in Iowa.

During World War II he served two years in the Navy.

## Department 4250 Leads Off in Holiday Plans To Aid Local Needy

Members of Mechanical Department 4250 are already well underway on their plans for Christmas charity in lieu of exchanging greeting cards.

At the committee's first meeting, it was decided that money, food, clothing and toys would again be collected for large families in need of assistance.

Last year 300 cans of food and \$200 were donated.

Donald Barack (4251-2) is heading the committee assisted by Leroy Shoemaker (4253-2) last year's chairman.

## Safety Store Gets Face Lifted Plus Three New Styles of Hard-Toe Shoes

Fresh paint, new display case, and three additional safety shoe styles soon to be offered are incentive for a visit to Sandia's Safety Store in Bldg. 857.

At the present time 12 models are stocked and 27 other styles may be specially ordered. Three styles for women—white nurses' shoes, brown oxfords and brown loafers—may also be specially ordered. Prices range from \$5.80 to \$15.70 and all have strong steel toes, which add a mere one ounce to the weight of each shoe.

Wayne McCrory of Safety Engineering Section 3211-1, who has operated the safety store for the past year, displayed three styles which are expected to be available the first of the year: a brown ox-

RALPH R. DAVIES to supervisor of F/M IHS Reports, Records and Controls Section 4332-2, Supplier Development and Purchasing Practices Division.



During his seven and a half years at Sandia Ralph has worked in Business Methods, four years in Manufacturing Development, and for the past three years in the Purchasing organization.

He came to the Corporation direct from two years in the Air Force, part of the time stationed with Armed Forces Special Weapons Project on Sandia Base as an electronics officer.

Ralph received a Bachelor's degree in business administration from the University of New Mexico and worked part-time during this same period as a design draftsman for the Corps of Engineers at Kirtland AFB.

Before attending the University he was general manager of an open pit gypsum mine near Fort Sumner, N. M.

He served in the Navy from 1942-46.

MORGAN L. KRAMM to supervisor of Space Projects Division 7232, Instrumentation Projects Department.

Morgan has been working with instrumentation for field testing during his six years with the Corporation. He has participated in Operations Teapot, Redwing, Plumbbob and Hardtack I. During the latter he was Program Director for the Teak and Orange high altitude shots.

For the past two years he has headed Data Handling Systems Section 7232-2.

Prior to coming to Sandia Morgan attended the University of Washington for a year under an AEC radiological fellowship. He earlier received a Bachelor's degree in physics from Emporia State Teachers College, Emporia, Kan. He is a member of Lambda Delta Lambda, science honorary, and Kappa Mu Epsilon, mathematics honorary.

He served in the Army from 1944-46 in Europe and was recalled for a year in 1950 to serve in Korea.

### Food and Jewelry

Ken Riddle (8223-1) brought home the bacon in the form of an 800 lb. elk following a recent week-long hunting trip to the Clearwater National Forest near Lewiston, Ida. Its five point antlers had a three ft. spread.

The animal yielded 378 lbs. of dressed meat. Ken plans to have a bracelet or earrings made for his wife from the miniature tusks of the elk.

The possibility of taking over Sandia's all-time AEC safety record decreased for two other AEC contractors—at least temporarily.

Union Carbide Nuclear Company and General Electric's Hanford (Wash.) Plant have both experienced disabling injuries. The two were approaching Sandia's record, as was reported recently in the Lab News.

The Dow Chemical Company is now the nearest contender for the record. This contractor will not be able to surpass the Sandia record for at least one year.

In the event that another AEC contractor should surpass Sandia Laboratory's safety record, the large trophy will be moved to the new record holder. A replica of smaller size will then come to Sandia Laboratory for permanent possession. The large trophy, however, will have Sandia Laboratory's name and record engraved on it.

## Promotions

- Barbara D. Hoeke (3126) to Typist Clerk
- Evangeline J. McCoy (3126) to Typist Clerk
- Beverly R. Johnson (8212) to Typist Clerk
- Mary C. O'Shea (8232) to Document Clerk
- E. L. Crocker (8123) to Data Reduction Clerk
- Louis S. Converse (8123) to Data Reduction Clerk
- C. R. Eisenhower (7241) to Staff Asst. Technical
- Lawrence H. Ivy (7241) to Staff Asst. Technical
- Freddie K. Millsap (7241) to Staff Asst. Technical
- Rupert H. McHarney (3463) to Staff Associate Technical
- Charles E. Spriggs (3463) to Staff Associate Technical
- C. A. Davidson (2632) to Staff Associate Administrative
- Sylvester DeLuca (4574) to Janitor
- John R. Russell (4573) to Material Handler
- Bobby A. Roane (4233) to Utilityman
- Gilbert H. Weaver (4573) to Automotive Mechanic
- Audrey C. Boxx (4234) to Layout Technician
- Floyd G. Shaw (3464) to Document Clerk
- Joyce G. Simpson (3126) to Steno. Clerk
- Dorothy S. Tierney (3126) to Secretarial Steno.
- Evelyn M. McCoy (3126) to Secretarial Typist
- Ronald B. League (8232) to Mimeograph Operator
- James L. Nickelson (8232) to Ozalid Operator
- Linda L. Burrow (8212) to Typist
- Teresa M. Pasqual (8232) to Document Clerk
- Gabriel Gutierrez (8232) to Senior Clerk
- Paul G. Dominguez (8213) to Accounting Clerk
- Andrew J. Landis (4234) to Layout Technician
- Victor W. John (4233) to Technician
- Fred P. Cerruti (8161) to Staff Asst. Administrative
- Raymond Falcon (8234) to Order Analyst
- John A. Caldwell (4153) to Investigator
- Joe Maria Sanchez (7532) to Service Clerk
- Judith A. Roach (8161) to Production Release Clerk
- Norma H. Schaad (7230) to Secretary
- Anne F. Hamilton (3151) to Employment Clerk
- Supervisory Lateral Transfers**
- N. J. Eich from 1127 to 1111
- M. C. Schiess from 1127-1 to 1111-2
- G. Voids from 1127-2 to 1112-2
- L. G. Rainhart from 1125-2 to 1112-1
- O. Milton from 1122-1 to 1113-2
- H. E. Montgomery from 1122-2 to 1113-1
- J. R. Garcia from 3121-1 to 3133-1
- G. V. Porter, Jr., from 3131-1 to 3122-1
- J. D. Mafit from 3122-1 to 3121-1
- W. T. Smith from 7253 to 7213
- A. E. Bentz from 7213 to 7253
- D. E. Irvin from 4112 to 3125
- J. H. Hockett from 3461 to 4112
- A. E. Jones from 3464 to 3461
- N. W. Ollman from 4611 to 3464
- R. C. Clifton from assignment in 4610 to 4611
- J. H. Porter from 3464-4 to 3461-3
- P. D. Welker from 2714-2 to 2715-3
- W. E. Rehbeck from 2714-1 to 2714-2
- R. H. Johnson from 4252-5 to 4251-1
- R. T. Othmer from 7182-1 to 7183-3
- C. A. Wells from 2715-3 to 2713-1



HONORED recently at the Albuquerque Junior Chamber of Commerce Civic Service Awards Banquet was Dan Fenstermacher (7224), above, who received a citation "for distinguished service to the citizens of Albuquerque through service to both youth and adults by encouraging the study of astronomy." Dan has worked for many years with individuals and groups promoting interest in astronomy, optical physics and other related space sciences.

## 22-Day Tour of Europe Planned for Coronado Club Members, Dependents

Considerable interest is being shown for a Coronado Club-sponsored vacation trip to Europe.

In order to proceed with the chartered tour, at least 75 persons must sign for the trip, according to George Banos (3122), Chartered Tours Chairman.

Only Coronado Club members and their dependents are eligible to take the trip. Individuals who are not members, but who wish to go to Europe, would have to join the Club now in order to be eligible since they must be on roll at least six months prior to departure. This is a regulation that is strictly enforced by the Civil Aeronautics Board which approves of the lower rates for chartered flights.

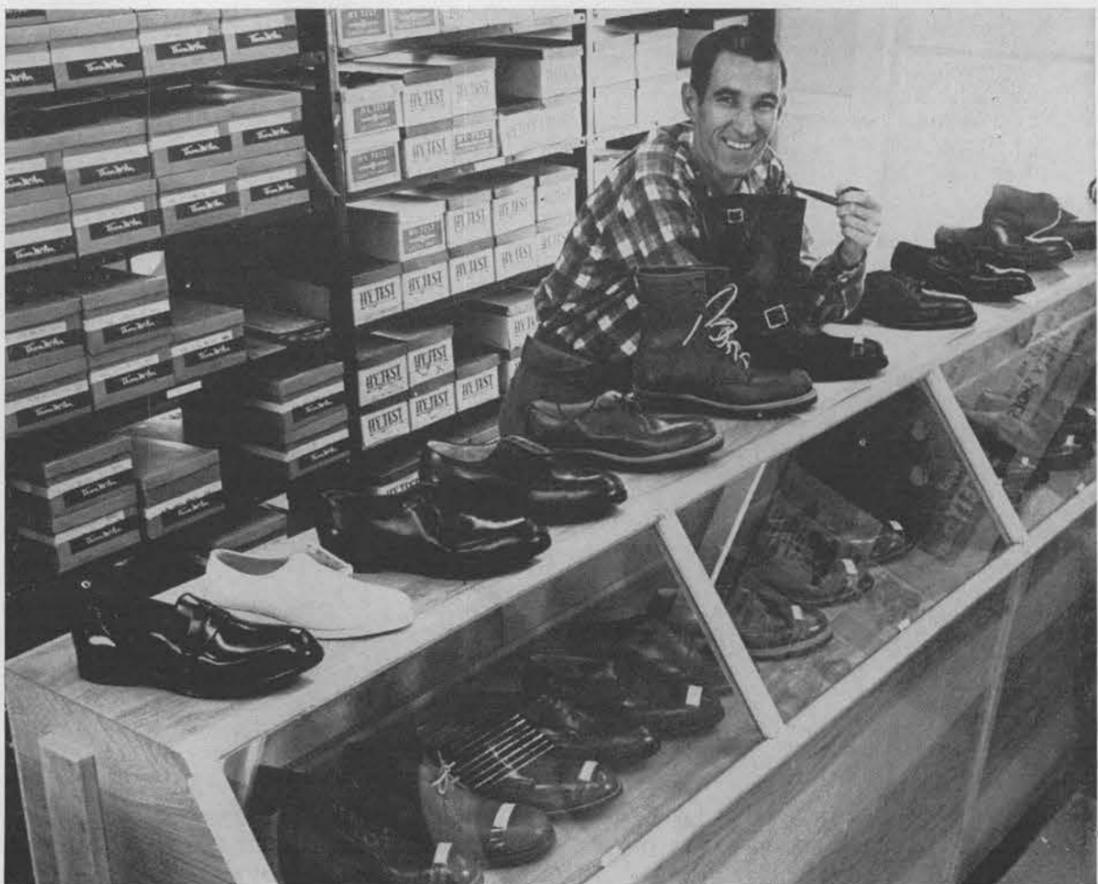
Cost of the trip would be between \$750 and \$850, depending

mostly on hotel accommodations, he said. This includes air travel from Albuquerque, land travel in Europe, rooms and most meals.

When enough people have indicated an interest in the trip, a meeting will be held to determine time (probably during summer months) and itinerary.

George has all information on the various tours available and may be reached at ext. 29157. Persons with a sincere interest in making the trip should contact the Club office, ext. 37276, as soon as possible.

A representative 22-day itinerary would include the following major stops: London, England; The Hague and Amsterdam, Holland; Brussels, Belgium; Paris, France; Lucerne, Switzerland; and Venice, Florence and Rome, Italy.



STYLES OF SAFETY SHOES stocked by the Safety Store in Bldg. 857 are displayed by Wayne McCrory (3211). Many other models may be specially ordered. Steel toe is standard construction.

"Deck the halls . . ."

## Christmas Parties Being Planned by Many Sandia Employee Groups

Thanksgiving may barely be past; however, many Sandia organizations are deep in plans for annual Christmas parties.

Members of 4600 and 2700 organizations will hold a dinner-dance Saturday, Nov. 26, at the Coronado Club. Dinner will be served from 7 to 8:30 p.m., followed by dancing to the music of Tommy Kelly's band.

The same evening employees of Area I Laboratory Division 7322 and their families will be marking the holiday season with a party in the Club's La Cana room.

Tickets for the 4200 (Development Shops) organization Christmas party were already sold out in mid-November. This dinner-dance at the Coronado Club will be Saturday, Dec. 3. Dinner from 6:30 to 8:30 p.m. will be followed by a half-hour entertainment and then dancing until 1 a.m. to Saul Chavez' band. Robert F. Scalf is chairman for the party.

The joint Christmas dinner-dance of organizations 4100 and 6000 will feature a smorgasbord followed by dancing to Tommy Kelly's five-piece orchestra. The party will be Friday, Dec. 9, at the Coronado Club from 6:30 p.m. to 1 a.m. Division representatives have tickets.

Technical Information Department 3420 will hold its party at the Sandia Base Officer's Club on Tuesday, Dec. 13, from 7 to 9 p.m. Dancing to a three-piece combo will follow a buffet supper.

The annual 3100-3300 organization party will be held Friday, Dec.

16, at the Kirtland AFB Officer's Club. The buffet line will be from 7:30 to 8:30 p.m. with dancing from 9 p.m. to 1 a.m. to Al Hamilton's band.

The 3200 party, sponsored by Local 27, International Guard's Union of America, will be Dec. 17 at the Coronado Club. Dinner will be served from 6:30 to 8:30 p.m. Dancing to the music of Dave Davies band will be from 9 p.m. to 1 a.m.

### Plans for Christmas Decorations Completed At Sandia Laboratory

Christmas decoration plans have been completed to give Sandia Laboratory a festive air during the holiday season.

A silver aluminum Christmas tree on a revolving stand will be placed in the reception room of Bldg. 800. A projector will flash different colored lights onto the tree.

Luminarias, which glowed atop Bldg. 800 last year, will be extended to Bldg. 802 this year. Colored lights will cover the entrance of Bldg. 800, and trees in front of the building will also be lit up. Red and green floodlights will illuminate the west wall of 800.

Season's Greetings signs and evergreen sprays will be hung at all gate houses. Christmas music will be played over loud speakers from Bldg. 800 15 minutes before and after work, and during the noon hour. Music will also be piped into the Bldg. 800 reception room.

Arrangements for the decorations, which will be up from Dec. 19 to Dec. 30, were made by Services and Benefits Division 3122.

Committee members are J. N. Johnson (3122), chairman, Matt Ungerman (retired), T. B. Sherwin (3431), W. C. Elskes (4511), T. A. Allen (4231), H. C. Redding (4151), C. W. Clendenin (7243) and Andrew Blain (4624).

Luminarias will also be featured again this year in Livermore Laboratory's Christmas display. Highlighting the display will be a scene of a Christmas celebration observed in the Rockies by pioneers on their way west.

### Sandia Satellites Are Still on Their Selling Mission

Sandia's two simulated Vanguard-type satellites are still "in orbit" traveling back and forth across the U.S. selling savings bonds.

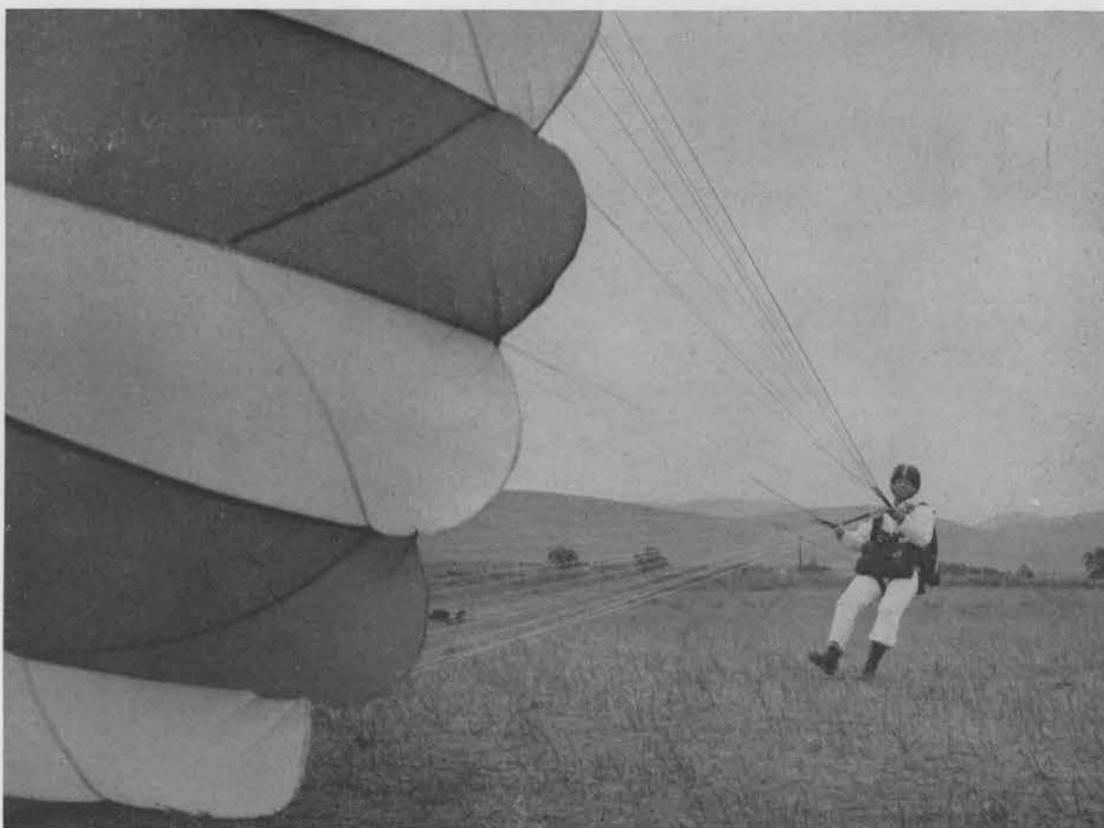
The satellite was first used in a Sandia exhibit in mid-1958 to help promote Sandia Laboratory's savings bond campaign. The United States Treasury Department borrowed it to exhibit and the demand was so great that Sandia was asked to make another.

Since that time the satellites have been steadily booked for showings at trade and industrial conventions, fairs, department stores, banks and other special bond exhibits.

Recent stops have been throughout the state of Louisiana and South Carolina. In the latter state a press book was published entitled "Tour of the Satellite in South Carolina." The satellite received special play at a newspaper publishers convention in New York City, and also at a Union Industries Show of the AFL-CIO in Washington, D. C.

The satellites have also appeared in Missouri, San Francisco, Salt Lake City and Tucson, and are scheduled for Reno, Nev., and Perry, Iowa.

Bookings are made through Regional Directors of the U.S. Savings Bond Division, with Sandia's Public Relations Division coordinating arrangements with the Treasury Department.



ON THE GROUND Kit finds the chute difficult to control in strong winds. The chute can be made to collapse by running in the direction of the wind, or by releasing latch to separate chute from harness.

## Livermore Laboratory's Kit Harrington 'Hits the Silk' - No Emergency—Just For Fun

Kit Harrington (8123-2) made final adjustments on his equipment as the plane's altimeter read 13,000 ft. He stood up, moved to the door, and dropped into space. It was his 40th parachute jump.

Kit had been interested in sky-diving for several years, but never had an opportunity to "hit the silk" until he arrived in Livermore early this spring. Since then he has jumped at least once each weekend, with many of the jumps including at least a 30-second free-fall.

"The first jump is the easiest," said Kit, "because you aren't sure what to expect. The next few are the most difficult, but after that the sport becomes increasingly enjoyable as you look forward to long free-fall periods of floating through air."

Once largely a European sport, parachuting has become increasingly popular in the U.S. since the end of World War II. "The Skydiver," the national magazine for parachutists, boasts a circulation of 2,500 and claims a total of 10,000 active parachutists currently in the U.S.

### Skindiver Too

Kit's participation in the unusual sport began when he moved to Livermore from Monterey, where he had been an avid skindiver and surfboard enthusiast. He joined the California Parachute Club in Livermore, well-known in parachuting circles as the oldest club of its kind in the state. Current membership totals 50, of which two are women.

As a new member in the Livermore club, he had to undergo a prescribed training course super-

vised by experienced personnel. The training included ramp jumping, landing falls, chute control, safety measures, body positions for falling and for chute opening, proper exits from aircraft, and use of the emergency chute.

"The first few jumps are made using a static line, where the rip cord is attached to the plane," Kit explained. "After the beginner becomes accustomed to the routine, he is allowed to make free-falls from the plane, pulling his own rip cord."

Kit is enthusiastic about the high-flying sport. "It's a thrilling experience," he said. "You're aware of rapid motion with no sensation of falling. It makes you feel isolated from the rest of the world."

### Hand Holding

Kit's most exciting experience, he said, occurred when he joined another parachutist in mid-air to complete a "Baton Pass," one of the finer points of the sport, whereby a baton changes hands between two chutists on the way down. The meeting is accomplished by varying the speed and direction of fall. Two parachutists jump from the plane one second apart and catch up with each other by one folding his arms across his chest to reduce friction, increasing his speed, while the other spread-eagles his body to slow his rate of descent.

A chutist in a stable position falls at the rate of 120 m.p.h. by the end of a 12-second free-fall. This speed can be increased to 180 m.p.h. by altering the position of the body.

### Jumping License

Kit recently received his Class B jumping license, given by the

Parachute Club of America for completing 30 jumps and prescribed training. License requirements include increasing the length of free-fall periods before opening the chute, and accuracy in guiding the chute to a pre-determined target area on the ground. The chutist must land within 50 yards of the target to qualify for a Class B license, and must complete at least one jump with a 30-second free-fall period.

Cost of the sport is reasonable. Membership in the club is \$60.00, with dues of \$30.00 per year. Equipment cost, if using armed forces surplus, runs in the neighborhood of \$200.00. The only additional expense is the cost of the plane ride, which runs 25c per 1,000 feet altitude, with a minimum fee of \$3.00. Members of the club who do not own their own gear may rent equipment from the club for a fee of \$3.00 per jump.

Kit's plans for the future include participation in the annual sky-diving contests held in Livermore, and becoming more expert in such intricate aspects of the sport as controlled flips, somersaults and loops.

(Editor's Note: There are parachute jumpers at Sandia Laboratory, too. An early issue of the Lab News will carry a report on the exciting sport in Albuquerque.)

## Welcome Newcomers

Nov. 7-18

Albuquerque	
*O. Jean Antoine	1314
W. Ann Borbely	3126
*Robert E. Dunlap	3420
*Margaret N. Hansen	3216
*Doris M. Orca	3126
Sally A. Polen	4325

Illinois	
John P. Weber, Park Forest	1312

Returned from Leave	
Richard L. Coughenour	4171
Priscilla G. Sanchez	3126

New Hires at Livermore	
*Robert A. Bailey, Livermore	8114-4
Ruby A. Bell, Livermore	8212-5
Edward L. Bradley, Port Orchard, Wash.	8141-1
Jerry D. Hunting, Bremerton, Wash.	8142-2
Paul H. Koetting, Richmond Heights, Mo.	8114-1
Chris Lagass, Livermore	8116-2
*John R. Lenz, Albuquerque	8114-2
Charles C. Pettinger, St. Paul, Minn.	8114-4
Alan L. Richards, Tracy, Calif.	8232-4

Returned from Leave	
Lenore D. Whalen, Livermore	8212-3

\* Denotes rehired



READY TO JUMP is W. J. "Kit" Harrington (8123-2) who made his first sky dive at the Livermore airport early this year. He recently received a Class "B" parachutist license for completing 30 jumps and prescribed training. His highest jump to date is 13,000 feet.

## AEC Seeks Bids For Remodeling Work in 894

Bids were invited last week for modifications to Bldg. 894, according to an announcement by the Atomic Energy Commission. Bids are scheduled to be opened Dec. 8.

The project will include remodeling a portion of the existing building, including general construction, partitioning, ventilating and evaporative cooling, plumbing, electrical power and lighting services, and new sewer and water services.

Work is to be completed within 100 days after the contractor receives notice to proceed from the AEC.

The remodeled area of the building will be utilized as office space for Control and Field Inspection Department 2710. The modification will also provide laboratory space for Inspection and Evaluation Department 2720.

Plant Engineering Project Engineer is V. E. Kerr (4543-3).

## Yucatan Film to Be Shown at Livermore

The Middle American Archaeological Society's expedition to Yucatan this past summer will be the subject of a film to be shown to Livermore Laboratory employees during the noon hour Dec. 7 in Room 249, Bldg. 912.

Don Knudsen (8123-3), who accompanied members of the society on the expedition, will be on hand to describe some of the group's activities.

## The Calendar

**Tuesday, Nov. 29**  
 American Institute of Electrical Engineers  
 Rm. 201, EE Bldg., UNM  
 Technical meeting 7:30 p.m.  
 (Refreshments served after meeting in Students' Lounge)  
 Speaker: George A. Roupe  
 Topic: "The Portable Nuclear Reactor—the present state of the art and what to expect in the future."  
 For further information contact Bill Trembly, AX 9-7926

**Thursday, Dec. 8**  
 Instrument Society of America  
 Christmas Party  
 Kirtland Officers Club  
 Social Hour: 6:30 p.m.  
 Dinner: 7:30 p.m.  
 Followed by dancing until 12 p.m.  
 For reservations or more information call J. H. McCutcheon (1322), ext. 37167

This information compiled by the Council of Technical and Scientific Societies.

# Skillfully Produced Models Tested In Sandia Wind Tunnel

A tiny gleaming rocket is poised in Sandia's wind tunnel. Suddenly a blast of air hits the model and quickly builds up to a speed of Mach 3. A few moments later the test is over. In the recording instruments that monitored the test is a wealth of data invaluable to Sandia's Aerodynamics Department 7130.

"In addition to saving thousands of dollars," Ken Crowder, supervisor of Design Division 7131, says, "these wind tunnel models make it possible to predict with confidence the performance of the full scale rocket."

With this in mind, men of Sandia's Development Shops organizations take particular interest and care in fabricating the tiny models.

"It's one of the toughest jobs we do," Cliff Taylor, supervisor of Project Shops Division 4253, says. "These models require the

utmost in precision. In most cases tolerances must be held to .0002 inch. Compound angles, interchangeable parts, complex curves and the small size contribute to the difficulties involved."

"Every skill in the machine trades is called upon to fabricate the model," Cliff continues, "and then some. Special tooling is usually required and special finishes for the materials. From rough shaping, grinding, milling, jig boring and special handling after completion, the job requires great know-how and ingenuity."

### Follow Production

The Lab News followed the production of one of the models through the Shops. This particular model of a two-stage re-entry research rocket required 708 hours of shop time to fabricate.

Heart of the model is the bal-

ance piece. This piece, fabricated in the Miniature Machine Section 4253-3, contains a number of tiny strain gage transducers. These transmit to recording instrumentation electrical impulses produced by the aerodynamic forces the model is subjected to during the tests.

Body pieces, several sets of various fin configurations and nose parts fit precisely onto the balance.

On this particular model, responsibility of the job was assigned to Project Section 4254-1 under Russ Herbert. Layout operator was Loren File. Time required for the job was estimated and a schedule set for the fabrication of each piece of the model.

Coordination was required with other 4200 Shop organizations for vital support functions such as heat treating the material, special grinding and jig boring plus plating and anodizing for special finishing.

As in any Project Section of the Development Shops, the supervisor and layout operator discuss production of the job. Then the layout operator plans detailed fabrication of the job with a team composed of a model and instrument maker, precision machinist and other skilled craftsmen.

As work begins the pieces move from operation to operation, with machine and hand polishing of the parts being the final step.

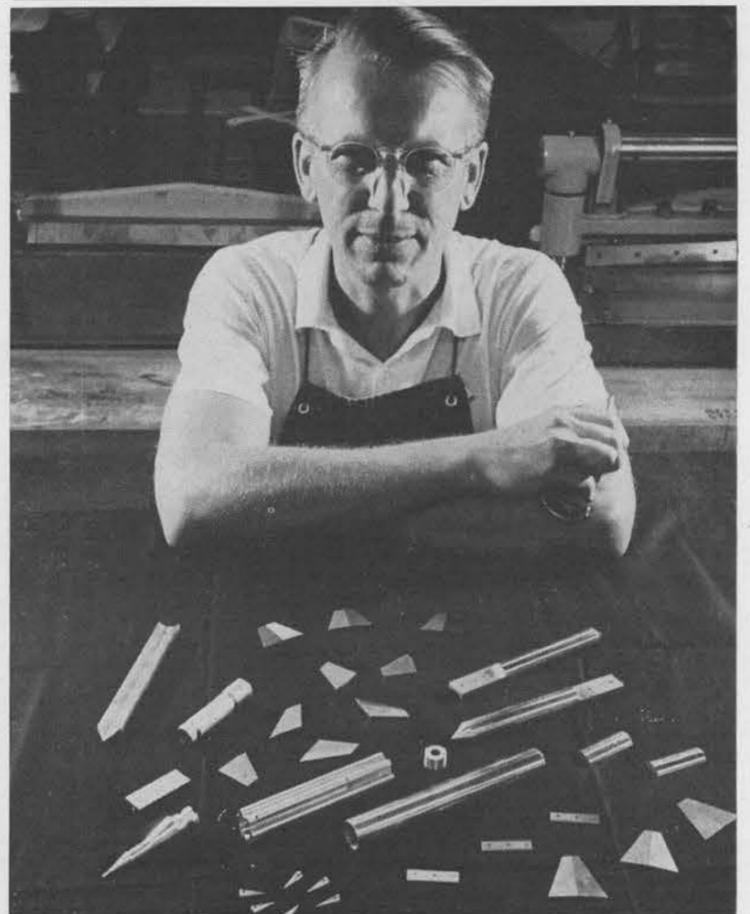
### Estimate Time

Original estimate of the time required for the job was 685 hours, only 23 hours short of the actual time. This kind of accuracy in time estimation is important in achieving the schedules of the shop.

"Cost of one of these models is relatively small," Ken Crowder says, "in comparison to the cost of a full scale rocket. In addition, the model can be 'flown' many times in the tunnel while the real 'beast' is good for only one shot."

Commenting on the craftsmanship of the Sandia fabricated wind tunnel model Ken said, "Superior!"

"Our models are tested in several tunnels in addition to the one at Sandia. All of these facilities report that our models by far are the best of any built anywhere. Our own experience is the same—we've used other than Sandia models and we much prefer our own—they meet every specification."



FINISHED PIECES of the two-stage rocket wind tunnel model are displayed by Ted Siegrist. The precision parts fit together perfectly and are held by tiny pins. Decision on which fin configuration will be used on the full scale rocket will be made after each design is thoroughly tested in the wind tunnel for performance.



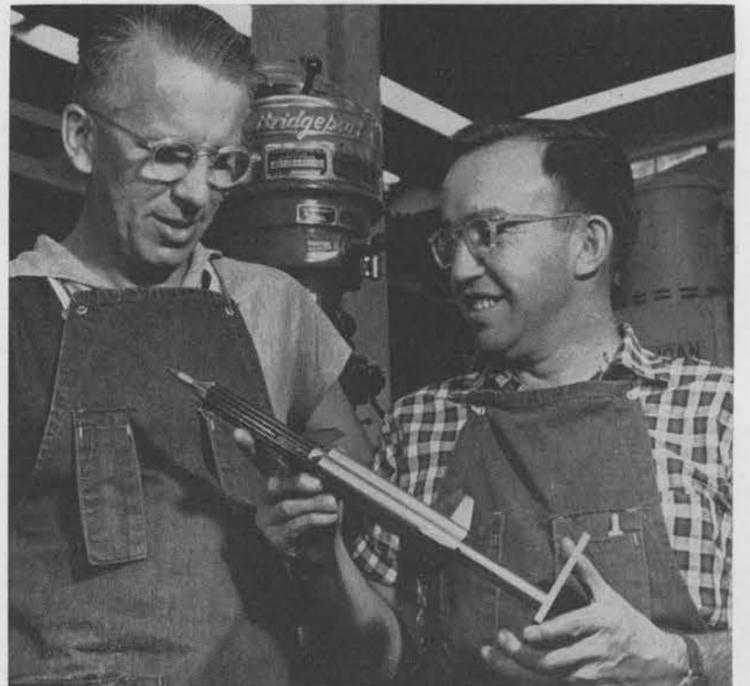
WIND TUNNEL MODEL fabrication job begins at planning session when Loren File (center), layout operator, goes over drawings with Ted Siegrist (left), model and instrument maker, and Paul Chavez, precision machinist. Step-by-step plans are made and the project is scheduled to the smallest detail through the Development Shops.



MILLING OPERATION performed here by Ted Siegrist shapes the first stage of the rocket. Special form milling cutter required for this operation was designed and built in the Development Shops. Tiniest flaw or misalignment will make piece useless.



CHECKING LATHE WORK, Paul Chavez uses micrometer to check dimensions of model body piece against drawings. Odd configuration of this piece duplicates in exact 1/25th scale the arrangement of the six Viper rocket motors used in the full-scale second stage.



FINISHED JOB is admired (yes, admired!) by Ted Siegrist and Paul Chavez. Fabrication of the job took 708 hours of shop time.



INTENSE CONCENTRATION of Bill Seaburn above is indicative of the extreme care required to locate holes for jig boring. Pieces in position are the fair-

ings on the nose of the rocket which streamline the airflow around the Viper rockets of the second stage. Tolerance here is a minute .0002 of an inch.

## Livermore Skindivers Explore Pacific Sea Lion Headquarters

A tiny U.S. coastal island swarmed with thousands of excited inhabitants as rumors of invasion swept the land. Alarmed and panic-stricken, many of the islanders attempted to escape into the sea.

Target of the "invasion" was "New Year's Island," a tiny rocky protrusion three quarters of a mile off the Pacific coast about 60 miles south of San Francisco. The excited inhabitants were sea lions. Invaders were skin-diving enthusiasts Tom Brumleve (8151-2), Dick Cook (8116-4), and Joe Vieira (8163-1).

Tom, Dick, and Joe, along with five other adventurers, paddled to the little island recently in a 20-man life raft. Their weekend excursion was prompted by high hopes of good fishing and the opportunity to view sea lions in their natural habitat.

The trip was challenging. Even before the watery crossing began, a trek of nearly a mile across drifting coastal sand dunes to the water's edge was necessary. At sea, strong currents, wind, and waves nearly drove the seafarers on the reefs.

### Mass of Animals

As they approached the island, it became evident that the entire area was a solid mass of the animals. Thousands of them, aroused by the arrival of the invaders, began barking, squirming, and scurrying into the sea.

The adventurers beached their deflatable raft and scoured the island for a suitable campsite and diving spots. As they walked, the remaining sea lions parted before them as a crowd parts before a presidential motorcade.

The adventurers went spearfishing and skin-diving for abalone, took pictures, and investigated the coves, rocks and habitats of the sea lions. The spearfishing was

fair and abalone fishing good. The sea lions enjoyed "buzzing" the skindivers, whizzing past them while underwater.

### Estimate 4000

The second day the island was again covered with sea lions. Tom climbed an abandoned lookout tower for a better view, and from there made a count of all the sea lions he could see at one time. "I counted groups of 100, and fashioned a mental picture of what a hundred looked like," he said. "Then, using this image, I made an estimate of all the sea lions I could see from the tower; both in the water and lying on the rocks and in the coves. I figured about 4,000."

One of the highlights of the trip was a view of a single sea elephant among the throngs of sea lions. The sea elephant, almost extinct, is nearly double the size of the sea lion and has a short elephant-like snout.

While investigating an old two-story frame house abandoned by the Coast Guard, the group found that the sea lions had made themselves at home in front of the fireplace, in the kitchen, and on the stairs. "We even surprised one in the bathtub," said Tom.

## New Mexico TB Association Seeks Employees' Help

Sandia Laboratory employees received Christmas Seals through the mail last week which were sent by the New Mexico Tuberculosis Association for its yearly fund-raising campaign.

Employees are reminded that the TB association is not one of the 33 agencies participating in the Sandia Laboratory Employees Contribution Plan.

Assisting the TB group are several Sandians. W. T. Moffat (7240) is vice president of the local association, and Glenn A. Fowler (7000) and C. M. Clendenin (7243) are executive committee members.

The drive this year is expected to yield more than \$100,000. Out of every dollar collected, 94 cents stays in the state for chest clinics, X-ray surveys, tuberculin skin testing among school children and case detection.

The mobile chest X-ray unit screens about 700 adults a week and discovers unsuspected chest diseases at the rate of six to eight per cent with three to four per cent revealing suspicious tuberculosis.

Christmas seals have been sold in the U. S. since 1907. The idea was originated in Denmark three years earlier.



**RACY RACER** built by Ron Wishart (8116-2) and Bill Dawson (8114-3) captured third place on a Pleasanton (Calif.) track last month. Bill plans to enter his car in other California races. Top speed for the vehicle is said to be 110 miles per hour.

## Home-Built Sports Car Winning Races, Admiration at Livermore

A new model not found at the recent Automobile Manufacturer's Show belongs to Livermore Laboratory employee Bill Dawson (8114-3). Bill not only helped to build the sports car, but he also raced it last month at a Pleasanton track winning third place in the event.

The car is the brainchild of Ron Wishart (8116-2), who designed and began work on the vehicle in 1957, welding the one-inch steel tube frame together, and fashioning the fiberglass body from a chicken wire and plaster of Paris mold. "It was a lot of work and took a lot of time, but I enjoyed the challenge," said

Ron. "Forming the fiberglass mold alone took three months."

Early this spring Ron sold the mechanically complete racer to Bill, who spent an additional eight months specifying and putting finishing touches on the car. All told, the speedster took about two and a half years to complete, and cost approximately \$850. Estimated market value of the finished car is \$2,600.

The white racer is powered by a completely balanced 4-cylinder Morris-Minor engine with an Alta racing head, making it capable of 7,000 rpm and speeds of roughly 110 miles per hour. Compression ratio in the engine is nearly 10 to 1. Other features of the car include two SU carburetors, a Derrington racing manifold, 4-speed transmission, and individual wheel suspension.

The size and unusual design of the racer have prompted many comments both in the Livermore Laboratory parking lot and on the road. "Since I've owned the car I've been stopped several times by the highway patrol," Bill said. "They've never given me a ticket, they just want to know what make of car I'm driving."

## S. P. Schwartz Named Director of Albuquerque Chamber of Commerce

S. P. Schwartz, President, Sandia Corporation, has been elected a director of the Greater Albuquerque Chamber of Commerce. He was one of 10 new directors chosen to serve three-year terms.

## Check List Prepared By Services, Benefits To Help Employees

Services and Benefits Division 3122 has prepared a check list of things to do when a member of an employee's family dies. Copies are available from O. J. Foster, ext. 52144.

The check list includes notifying the company where the person worked, checking Social Security benefits, Veterans benefits, insurance and outstanding bills, and obtaining necessary certificates, papers and other pertinent information.

The list could also be used by an employee to make sure all of his own records and those of his family are in order in case something should happen to him.

In the event of the death of a Sandia employee, Services and Benefits Division assists the family with the disposition of Sandia benefits and other personal matters.

## U. of California Speaker Appears On Colloquium

"Fluff Ball Comets and Interplanetary Dust" will be discussed by Dr. David Beard, University of California, at a research colloquium Wednesday, Dec. 7.

No tickets are required for the meeting which begins at 9:30 a.m. in Bldg. 815. For further information contact C. C. Hudson (5111), colloquium chairman.

## L. B. Smith Speaks To Rocket Society in Washington Dec. 8

Lawrence B. Smith (5111) will present a technical paper at an American Rocket Society meeting in Washington, D.C., on Dec. 8.

Title of his paper is "Use of Chaff Rockets for Measurement of High-Altitude Winds."



**GAINING YARDS** for the Sandia Lab All Stars is Richard Reed (3462) in part of the fast moving game against the Sandia Base Team during recent All-Stars tournament. Sandia Lab led into the fourth quarter but two touchdowns gave Sandia Base the game 30-22.



**SANDIA FLAG FOOTBALL ALL STARS** pose for a team portrait before the game with the Sandia Base team last week. In the first row, (l to r) are Herb Filusch (7124), Buddy Sanchez (3464), Jerry Williams (3464), Dan Pfluer (7241), Sunny Sanchez (3461), Ray Chandler (7511), Jack Thompson (AEC), Dick Reed (3462), and

Jim Brock (7312). In the second row are Phil Loeper (4412), Al Brazda (7243), Lowell Peacock (2752), Lenny Kracko (2752), Charlie Salazar (4254), Harry Blechinger (7323), Don Bower (4234), Art McCarthy (7223) and Norris Rose (3121). Everett Massey (7511), coach, is not shown. Final score was Sandia Base 30, Sandia Lab 22.

## W. L. Chapman To Retire Nov. 30

William L. Chapman, a teller in Financial Division 6021, will retire Nov. 30 after seven and a half years with Sandia Corporation.

A native of Indiana, the warm winters in New Mexico have appealed to Mr. and Mrs.

Chapman so much that they are going to remain in the Southwest and move to Boulder City, Nev.

Mr. Chapman is looking forward to the good fishing on Lake Mead—and of course there is always nearby Las Vegas.

Until moving time the Chapmans will be at home at 3022 Morningside Drive NE, Albuquerque.





Howard M. Hadlock 3242 Nov. 24, 1950  
Wendell E. Davis 4413 Nov. 27, 1950

10 Years



Cecil R. Mock 2451 Nov. 27, 1950  
Thomas R. Thompson 2644 Nov. 27, 1950



Helen P. Culley 3321 Nov. 28, 1950  
Theodore R. Gourd 3451 Nov. 28, 1950



A. K. Wheeler 4332 Nov. 27, 1950  
John B. Braffett 1411 Nov. 28, 1950



Henry D. Roeder 4224 Nov. 28, 1950  
B. L. Bookwalter 2311 Nov. 29, 1950



Edwin M. Inglat 7118 Nov. 29, 1950  
Edward C. Mould, Sr. 2644 Nov. 29, 1950



Donald A. Mayfield 3242 Nov. 30, 1950  
Charles L. Hines 3341 Dec. 1, 1950



A. B. Metzger 3210 Dec. 1, 1950  
Frank R. Snyder 4314 Dec. 1, 1950



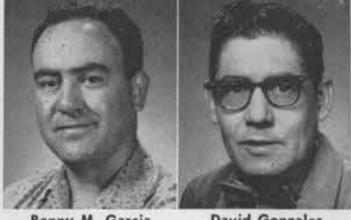
Harry E. Schnarr 4581 Dec. 2, 1950  
Robert M. Chesnut 3126 Dec. 4, 1950



John T. Lannon 7221 Dec. 4, 1950  
Gail A. Sievert 4344 Dec. 4, 1950



Dorothy M. Washburn 4612 Dec. 4, 1950  
Samuel L. Egger 7536 Dec. 6, 1950



Benny M. Garcia 4611 Dec. 7, 1950  
David Gonzales 2441 Dec. 7, 1950



Daniel J. Aquino 2642 Dec. 8, 1950  
William C. Baldwin 4512 Dec. 8, 1950

Five Years

Nov. 26-Dec. 9

Ruth M. Chapman 3466, Richard A. Dickson 8233, Irving C. Ellicott 8114, Margaret A. Sanders 4423, Leonard F. Foster 4412, Eustaquio Rael 4252, Norman C. Lucas 7322, Robert E. Adams 2452, George D. Edwards 4575, William J. Luce 4231, Michael R. Silva 3466, Charles E. Jackson 7117.



Oliver K. Campbell 4623 Dec. 8, 1950  
James A. Perry 8121 Dec. 8, 1950

Cancer Society Gives Thanks to Sandia Employees

Appreciation for Sandia Laboratory employees' assistance to the American Cancer Society was expressed in a letter last week to the secretary of the Employees Contribution Plan.

The letter said in part: "New Mexico was recently presented with the National Citation from the American Cancer Society for overall progress in cancer control. This would not have been possible without the monetary assistance of groups such as yours, which enabled us to carry on such an extensive program."

Two for One At Coronado Club During December

From Dec. 1 to Dec. 25 the Coronado Club's "Two for One" feature will be offered every evening from 5:15 to 6:45 except on those nights when an organization party is scheduled.

This action was decided at the club's board of directors meeting last week since no social hours or dances are scheduled for members during December due to organization parties.

Members should check their December calendars to find out when organization parties will be held.

U. S. Army Association Meets at Coronado Club

The Albuquerque Chapter of the Association of U.S. Army will hold its fall dinner meeting Nov. 30 at 6:30 p.m. at the Coronado Club. Guest speaker will be Brig. Gen. Dwight D. Johnson, deputy commander, Field Command, DASA.

Reservations may be made with G. H. Schafer, ext. 42222, vice president of the group of Army reserve officers.

R. N. Sparks Killed In Auto Accident Near Salton Sea

Robert M. Sparks (4581) was killed early Nov. 10 when his car collided with a bus on Highway 99, 10 miles south of the approach road to Salton Sea Test Base, Calif. He was 38.

Mr. Sparks had been a maintenance man in the Plant Services organization at Salton Sea since July 1947.

He is survived by his father in Albuquerque and two sisters.

Funeral services and burial were conducted in Red Bay, Ala., last week.

Livermore Awards Prizes For Biggest Fish Caught

Winners of the Nov. 5 Sandia Bass Derby at Livermore were Bob Bohannon (8222-2), first place, with an 8 lb. 7 oz. bass; Bob Neighbors (8116-2), second, whose bass weighed 5 lbs. 14 oz., and Dick Ballard (8212-2), third, who reeled in a 5 lb. 13 oz. bass.

The event was arranged by Paul Coronado (8115-2) with the coordination of Employee Services (8212-2). Over 25 fishing enthusiasts participated in the contest. Another bass derby is scheduled for Dec. 10.

Delta Sigma Pi Meets

Delta Sigma Pi, professional business fraternity, will hold its semi-annual initiation, followed by a dinner-dance on Dec. 3. All alums are asked to contact Emery Postenrieder (2563-2), ext. 34244, for further details.

SHOPPING CENTER

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CLASSIFIED ADVERTISING

Deadline: Friday noon prior to week of publication unless changed by holiday.

RULES

1. Limit: 20 words
2. One ad per issue per person
3. Must be submitted in writing
4. Use home telephone numbers
5. For Sandia Corporation and AEC employees only
6. No commercial ads, please
7. Include name and organization.

FOR SALE

- SHOPMASTER combination 8 in. saw and jointer, \$80; Craftsman jigsaw w/motor and stand, \$40; 4 place settings, International sterling silver, \$50. Hull, AX 9-1279.
- VACUUM CLEANER, GE upright, \$16.50. Glenn, AX 9-2743.
- '52 TRI-PACER plane, 135 hp, 300 hours since major, VHF-LF radio. Maxwell, AX 9-6990.
- STERLING SILVER flatware, Westmorland "John and Priscilla" pattern, five 6-piece place settings, \$125. Janney, AM 8-8074.
- AUTOMATIC WASHER, Hotpoint, \$35; 30" x 48" plate glass mirror, \$20. Jolly, 11212 Snow Heights Blvd. NE, AX 9-6979 after 5:30 p.m.
- '57 KENMORE washer, \$65. Davis, AL 5-6627.
- DINING ROOM set, solid mahogany table, buffet and four chairs, recently refinished, \$75. Coughenour, AX 9-0914.
- '53 FORD, R&H, new seat covers, \$345. Keller, AL 5-9805.
- ENCYCLOPEDIA Americana 30 vol., 5 annuals through 1960, bookcase, \$145. Radman, ext. 31236.
- TIRE CHAINS, brand new, 6:70 x 15, \$7. Grogg, AX 8-0267.
- BLACK WATCH plaid suit, slacks, hat, \$11; car coat, leather toggle trim quilted lining, skirt, \$11, all size 11-13. Tendall, ext. 23195.
- LIMED OAK drop leaf table, 4 upholstered chairs, china cupboard w/sliding glass doors, \$85; GE cabinet ironer, \$50. Goris, AL 5-4861.
- 21" TV, Magnavox, on casters; 1946 Pontiac sedan; holster for .38 special revolver; jigsaw. Harris, AX 9-6664.
- BEDROOM SUITE, hard maple, 4-piece, double bed, box spring, mattress. Wright, AM 8-8490.
- AUTOMATIC WASHER Kenmore, bolt-down type, \$20. Cox, AX 9-0480 after 5 p.m.
- RCA 45 rpm changer, needs needle, take it as is for \$3.50. Sayers, AX 9-1833.
- BOW KODIAK Special, 12 aluminum arrows, glove, arm band, \$100 value for \$50, terms. Cordova, AX 9-3460.

NEXT

DEADLINE

FOR SHOPPING CENTER ADS Friday Noon, Dec. 2

- '58 FORD Country Sedan V-8, will sell or trade my equity; 1959 Sears Allstate 5 hp motorcycle. Calvery, AM 5-0351.
- COLLIE PUPS, AKC registered, champion blood lines, males \$50, females \$35. Lathrop, CH 2-5607.
- STORM WINDOWS 14 four-pane windows, 28" x 58"; 1 door; 1 screendoor; reasonable. Reinertsen, AL 5-1954.
- LIONEL TRAINS, .027 gauge, extra cars and track, \$45. McCallum, AM 8-1158.
- NOVICE TRANSMITTER, Heath AT-1 with 6146 in final, \$20. Laskar, AX 9-1024.
- METAL DESK; practically new portable typewriter; swing set; high chair; two wicker basket chairs. Trumble, AM 8-7477.
- REFRIGERATOR, Hotpoint, two doors, 10.6 cu. ft. refrigerator and 75 lb. freezer, \$150. Mrs. Kail, AL 5-2933.
- '55 CADILLAC, all power, \$1250, Schafer, AL 6-2662 after 4:30 p.m.
- ELECTRIC HEATER, Knapp-Monarch Fin Radiation room heater with 2 heat settings, \$15. DeWitt, 3409 Cuervo NE, AM 8-5910.
- '51 MERCURY convertible, excellent transportation, \$200. Laughlin, ext. 43224.
- POWER SUPPLY, Electro DC, Eico flyback transformer and yoke tester, Century speaker substituter, Simpson model 260 millimeter. Phillips, AX 8-0541.
- ELECTRIC TRAINS, complete set, extra diesel engine, 50 ft. track, many accessories \$50. Rector, 3508 Espejo NE, AX 9-9164.
- '56 CADILLAC sedan fully equipped including factory air, low mileage, \$1595. Welker, AX 9-1179.
- 3 BDR House, close to schools, shopping, air conditioned, central heat, disposal. Rent or sell on low down payment. Richardson, AM 8-6372.
- KITCHEN TABLE and four matching chairs, chrome and canary, drop leaves open to 50" x 30". Caff, AX 8-1632 after 6 p.m.
- 21" TV, Motorola console; platform rocker. Kelley, AL 6-4982.
- '55 PONTIAC, 4-dr. sedan, auto. trans., R&H, tutone brown and white. Lewis, AX 8-0779 after 6 p.m.
- DESK, walnut finish, 6 drawer with leatherette executive chair, \$65. Stiver, AX 9-6469.
- '52 PLYMOUTH 4-dr., R&H, good tires, new shocks, dependable \$200. Wheeler, AL 6-7284.
- COLONIAL SOFA, flexsteel 90", brown wool, mohair; harvest table, 2" plank maple, 8 matching chairs; amber glass colonial lamps. Roberts, 2704 Wisconsin NE.
- TABLE LAMPS, two \$3 each. Miller, AM 8-5992.
- '58 FORD, big engine, overdrive, heater, padded dash, ivory finish, wholesale plus \$75. Gatlin AM 8-8151.
- PHILCO refrigerator w/freezing compartment, \$65; 36" wide 4-burner gas range, \$40; both for \$90. See at 2516 Gen. Arnold NE, Moon, AX 9-1181.

- '53 DESOTO Firedome V-8, 4-dr., new tires and brakes, R&H, power brakes, auto. trans., original owner, \$300. Roth, AX 9-5033.
- 3 BDR HOME 1 1/2 baths, carpeted, Roberson resale, \$1500 down to new FHA mortgage. Peterson, 1904 Moon NE, AX 9-6473.
- OSCILLOSCOPE, Heath Model OM-2, \$25 or will trade for other equipment. Terry, CH 7-4449.
- STRING GUITAR, Stella, best offer. Bode, 3707 Hannett Ave. NE, AM 8-2157.
- LAMPS: ceramic table lamp and pole lamp, \$10 apiece. Sabisch, DI 4-6185.
- 3 BDR HOME, near Sandia Base, lawn, air-conditioned, stove, cement drive, full insulation, \$11,250, \$500 down terms. Leslie, AX 8-2178.
- AUTOMATIC WASHER, Wards Deluxe, large capacity. Lynn, CH 3-1418.
- DIAMOND RING, 1/2 carat solitaire. Sena, AM 8-7969 after 6 p.m.
- '50 CHEVROLET, 2-dr., good tires, runs good, \$150 or best offer. Mrs. Gorey, 10308 Apache Ave. NE, AX 9-6829.
- DRUM, Slingerland snare, \$20; baby Portabed, \$12; garage door, wooden overhead w/hardware, \$10; playpen, \$3. Champe, AX 9-0066.
- MOTOR SCOOTER, 1954 Lambretta. Ruff, AM 8-9969.
- CRAFTSMAN 8" circular saw w/motor and stand; combination 6" belt and disk sander w/motor, stand; Lionel electric .027 gauge train, extras. Lantz, 400 Valencia Dr. NE, evenings.
- '58 FORD Country Sedan, 9-pass., Fordomatic, R&H, \$1195. Costello, 1828 Blume NE, AX 9-0563.
- STAUFFER deluxe with automatic timer, \$150. Gay, 2601 Virginia NE, AX 9-5625.
- MOSSMAN pitched roof, 3 bdr, fireplace, walled yard, shade trees, landscaped, Rainbirds backyard, garbage disposal. Ellsworth, AM 8-2559 after 5 p.m.
- BAMBOO DRAPES, turquoise, length 84"; for window width of 70", \$7; 84", \$8.50; 105", \$10. Pope, 816 Val Verde SE, AL 5-6702.
- 4x5 DEJUR professional Coldlite enlarger with two carriers; 4x5 B&J press camera with F 3.5 Tessar lens. Hall, AX 9-6689.
- AMERICAN FLYER freight and passenger train, loads of track and accessories, \$50. Kohut, AX 9-9092.
- 2 BDR HOME, 9 blocks from Base, walk to schools, shopping, many extras, low payments, will negotiate. Van Deusen, AX 9-4328.

- '50 BUICK Super, 58,500 actual miles, \$175. Crosley, AL 5-0106.
- DRAPES, four pair floor length, \$10 pair, \$35 total; four 54" wrought iron rods w/brackets, rings, \$3.50 each, \$12 total. Marsh, CH 3-2767.
- 17" TV table model, repair or use for parts, \$15. West, AL 5-0456.
- '54 JEEP station wagon, R&H, overdrive, 18 mpg in town. Romero, DI 4-0302.
- CEMENT MIXER, \$50; two 6-ply tubeless tires, size 650x16, \$19.50 each. Stuart, AX 9-9190.
- 2 BDR Hoffman economy home, below FHA appraisal, carpeted throughout, drapes, stove, patio, carport, storage, large lot. Savage, 2312 Parsifal NE, AX 9-7130 after 5:30 p.m.
- 4 BDR HOUSE, 1 1/2 baths, oversized garage, landscaped, near schools, Heights, nothing down GI, rent with option to buy FHA, immediate possession. Summers, AX 9-4674.
- BOY'S BICYCLE, English style, large size, \$20. Mancuso, AX 9-4279.
- 17" TV, Admiral cabinet model, \$38; Westinghouse electric roaster w/cabinet, automatic timer, \$25, or \$58 for both. Pleger, AX 9-1709 after 5:30 p.m.
- AIR CONDITIONER, 3/4 hp apartment size; gas range; 9 x 12" wool carpet and pad. Countryman, AM 8-7119.
- ROBERSON 3 bdr. and family room, 2-car garage, w/w carpet, air conditioning, drapes, \$17,400, \$2600 down, terms. Dean, AX 8-0115.
- '56 DODGE, 1/2 ton, 3 speed, 6 cylinder, heater. Ramey, DI 4-6769.
- 3 BDR house, full basement, mosaic baths and vanities, huge den, built-in range, drapes, landscaped, sprinklers, \$21,000, \$2400 to existing GI. Evanoff, AX 9-5773.
- STEREOPHONIC portable stereo with 12 3 1/2" albums, best offer. Salas, AM 8-3538 after 6 p.m.
- OSCILLATOR, Knight variable frequency, suitable for amateurs, \$15. Drake, AX 9-0743.
- CLARINET, B-flat, black wood, Paris standard, \$80. Tucker, CH 7-8687.
- BEAGLE PUPPIES, two males, one female, registration papers available. Robinson, AX 9-3930 or see at 1911 Hoffman Dr. NE.
- TWEED COAT, ladies size 14, full length, also red and green check car coat. Hager, AX 9-1939 after 5:30 p.m.
- 10' SECTIONAL sofa bed, \$75; beige occasional chair, newly upholstered, \$8; new Westend coffeeemaker, \$8; office chair, \$4.50. Schultz, AX 8-2731.
- '56 CADILLAC sedan, fully equipped including factory air, low mileage, \$1595. Welker, 8510 Flower Place NE, AX 9-1179.
- '47 JEEP station wagon, \$190. Hart, AX 9-8832.

FOR RENT

FURNISHED 2 BDR house, 9617 Salem Rd NE, 1 block north of Menaul, 1/2 block east of Eubank. Franklin, ext. 23255.

WANTED

- TO TRADE good equity in 2 bedroom home, North Valley, for small acreage either north or south out of city. Haley, DI 4-3919.
- RIDE from vicinity of Snow Heights, Morris and Baldwin NE to Gate 8, Bldg. 880. Chadwick, AX 8-1298.
- METRONOME in good working order. Stuart, AX 9-9190.
- HOME FOR one small, all black, female kitten. Tatum, TR 7-0997.
- IRONING, sewing, alterations. Berger, AL 5-0265.
- CHILD to care for in my home, Monday through Friday, ages 2 to 5. Harris, 9512 Cordova NE, AX 8-1610.
- RELAX-A-CYCLE to rent for three months. Flanagan, AM 8-8466 after 5 p.m.
- CHILD to care for in my home, three blocks from Gibson-Louisiana gate. Morris, 920 Kentucky SE, AL 6-0152.
- USED 20" boys bicycle, accessories not important. Deveneau, AX 9-4055.
- HOMES FOR PUPPIES, part-airole and part something else, seven weeks old, free. Harwood, AX 9-1194.
- RIDE FROM Hoffmantown shopping center to Gate 8, Bldg. 880. Will consider car pool. Lane, AX 9-9329.
- ELECTRIC CONTROL valve, thermostat and transformer for a gas floor furnace. Roberts, AL 5-9527.

FOR SALE AT LIVERMORE

- HOFFMAN 17" TV, table model, \$25. Gallagher, HI 7-5747.
- REVOLVER, Smith & Wesson K22, \$60; scope, 2-3/4X Redfield Bear Cub, Buehler mounts, \$60. LeLancho, HI 7-2307.
- '57 FORD Fairlane 500, V-8, automatic transmission, 2-dr. hardtop, extras. Joseph, Ext. 2226.
- UTILITY TRAILER, 2-wheel, 3' x 6' box, new tires, hitch included, \$65. Stewart, HI 7-3697.

## Woman Programmer Selected As Member by National Ski Patrol

Among skiers the volunteer rescue work of the Ski Patrol is well known. Among members of the Ski Patrol, membership in the National Ski Patrol is indeed a high honor.

Zelma Beisinger, programmer in Computer and Numerical Analysis Division 5426, was presented badge number 146, National Ski Patrolwoman, and a congratulatory letter from Bill Judd of Denver, head of the National Ski Pa-

trol, during a recent meeting of the Albuquerque Ski Club.

Presentation was made by Ed Long (3231), who by coincidence holds badge number 146, National Ski Patrolman. He has been a member of the honorary group since it was established in 1937 so the similarity in badge numbers signifies how few women have been able to fill the requirements.

### Mountain Climber Too

It is an unusual week-end or holiday when Zelma can be found at home. Since coming to Albuquerque from the Missouri flatlands in 1954 she has become an avid skier and mountaineer. She has climbed high peaks in New Mexico, Colorado, Wyoming and California and frequently is a trip leader for the New Mexico Mountain Club.

As a member of the Albuquerque Mountain Rescue Council she has participated in rescue operations in the Sandias and near Penasco Springs.

## NSC Honors Sandia With New Award For Safety Record

Along with the national all-time Atomic Energy Commission safety record, Sandia Laboratory has been honored by the National Safety Council. Sandia's record of 14,936,169 employee-hours worked without a lost-time accident has been recognized as the best in the National Safety Council's category of industries performing similar type of work at Sandia.

The NSC plaque proclaiming another all-time record for Sandia will be displayed on the wall near the entrance to Bldg. 802. It will hang with nine other Sandia safety awards from the NSC and five more AEC awards for outstanding safety performances during the past nine years.

"These awards are indeed a tribute to the safety-mindedness of every Sandia employee," says A. B. Metzger, manager of Safety Engineering Department 3210. "Each employee should experience satisfaction which accompanies a job well done."

## Leo Gutierrez Wins Post as Director of Recreation District

Leo Gutierrez, manager of Preliminary Design Department 8140 at Livermore Laboratory, was elected to the board of directors of the Livermore Recreation and Park District in the Nov. 8 elections.

Two positions on the board were at stake in the election. Leo was elected to a vacancy on the board, while the incumbent candidate was re-elected.

Although the term of office does not officially begin until Jan. 1, the board of supervisors agreed to appoint Leo immediately to the seat vacated by the resignation of a board member two months ago.

### Locate Injured Sportsmen

Main duties of any patrol are to locate any injured skier and bring him down off the slopes in a toboggan to a patrol room where first aid is administered preparatory to transporting the injured person to a hospital or physician. The service is strictly voluntary and frequently involves physically hard work in inclement weather.

To qualify for the National Ski Patrol Zelma also attended an Avalanche Course offered in Santa Fe last year. After a lecture on the procedure to be followed, the dozen participants practiced probing in a snow bank at the Santa Fe Ski Basin until they located a dummy avalanche victim. "The most realistic thing about this practice was the confusion typical in such type accidents," Zelma recalled.

Last March, after her application had been submitted, Zelma was invited to take another skiing test before National Ski Patrol officials at Wolf Creek Pass in southern Colorado.



HIGH POINT of monthly meeting is vote by members to determine which of the selected stocks will be purchased by the investment club. Sometimes when vote is close, shares of two stocks are bought.

## 'Micromegs' Serious in Their Stock Market Investments

A Standard and Poor's merit award for the best performance of an investment club in New Mexico in 1960 was recently received by the Micromeg Investment Club, comprised of 17 Sandians who take their stock market dealings seriously.

In addition, this fall the group received a comparative rating from the National Association of Investment Clubs which established its annual growth at 18.2 per cent per year—more than four times the standard set for model clubs.

This performance placed the Micromegs 69th in a list of 547 clubs throughout the country. In comparison with other two-year-old clubs with similar investment, the Micromegs are in the top fifth.

The club was organized as a partnership in July 1958 with the objective of learning investment principles by doing. The group meets in Bldg. 892 during the lunch hour the first Wednesday of each month to discuss stock issues recommended for purchase by a revolving selection committee of four.

Current officers are Joseph Crompton (2563), president, Richard T. Othmer (7183), vice president, Steve Neff (2533), secretary, and Lewis A. Fjelseth (7164), treasurer.

Each member contributes \$10 per month for investment purposes. The club follows a rigid policy of investing regularly, reinvesting earnings, and investing in growth companies.

When the monthly meeting is held members of the stock selection committee have already analyzed selected issues by use of stock selection guide sheets obtained from the National Association of Investment Clubs and background material available from the club's stock broker. Growth in sales and earnings are used to forecast future performance: Average Price to Earnings ratios are used to predict high and low prices. Zones of "Buy," "Maybe," and "Sell" are established.

Even so the hour-long meeting must move along briskly to hear the reports on the offered stocks, allow for discussion of the companies, vote on stock to be purchased that month, and attend to any additional business. All this between bites of sandwiches.

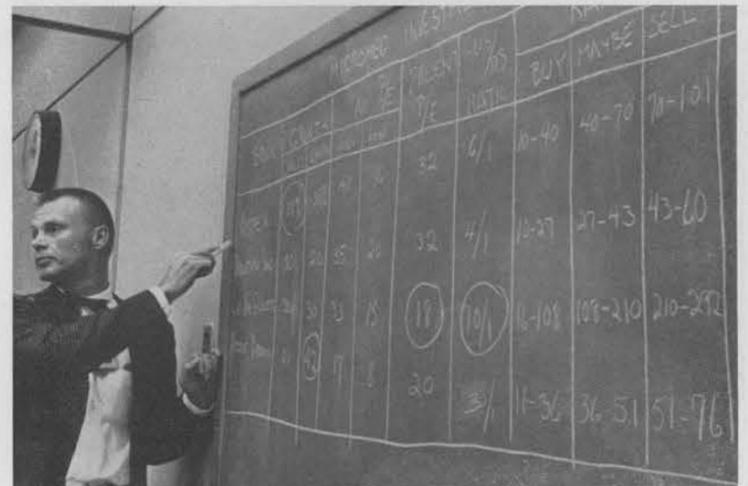
If a member can't attend the meeting he may vote by proxy.

The club's total value naturally fluctuates with the general trend of the stock market. In February 1960 the club's value was \$4124 although members' total investment was only \$3211. However, in September the total value had dropped to \$3863 despite a higher investment of \$3734.

"At a time like this when the general market conditions were lower, our club was lucky to stay in the 'buy'," noted President Crompton.



PORTFOLIO MANAGEMENT guide from National Association of Investment Clubs is available to members of Micromeg Investment Club for their use as well as stock selection guide, and other aids.

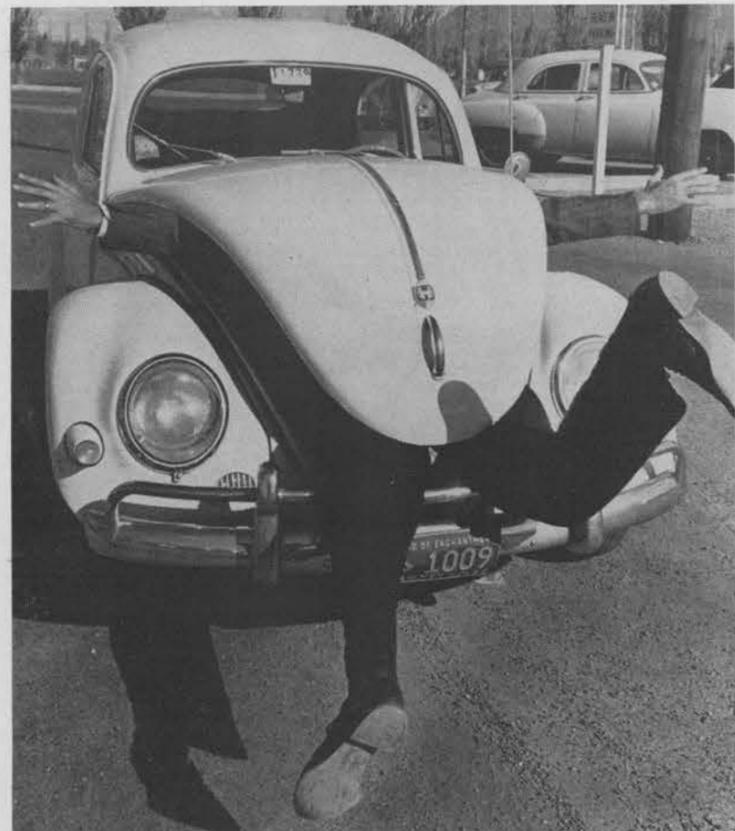


AFTER REPORTS have been presented on the selected stocks, Micromeg members have chance to compare sales and earnings, price range and other statistics of the suggested offerings. Here Joe Crompton, president, opens discussion on Ampex company.

To date the club's prize stock has been Texas Instruments, which was purchased in September 1958 for \$46.50 a share and has topped \$200 in recent months. Shares in the other 16 stocks held by the Micromegs are about evenly divided between those that have increased in value and those that have decreased.

In addition to the officers, other

current members include Leo Caferty (7521), Morris Goebel (7521), Jerry Ligoeki (7182), Mel Oberst (1331), Harry Olson (2531), Marvin Plugge (2533), Ray Rychnovsky (2533), Walter Dauphinee (2533), Joe Placek (2541), Leo Reynolds (2541), Robert Hedberg (7182), Hilton Souther (2531), and Benito Marquez (7522).



THEY SAID it couldn't happen here! However, while stopped in a Sandia parking lot this Volkswagen began to consume a pedestrian insect-fashion. The moral: when crossing a driveway watch out for cars and motorized insects whose sting can be fatal.

## Sandia's Safety Record

**Sandia Laboratory HAS WORKED 1,130,000 MAN HOURS OR 34 DAYS WITHOUT A DISABLING INJURY**

**Livermore Laboratory HAS WORKED 4,050,000 MAN HOURS OR 1740 DAYS WITHOUT A DISABLING INJURY**